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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,362	04/27/2006	Evripidis Koukouravas	1006/0158PUS1	9012
60601 7590 08/10/2010 Muncy, Geissler, Olds & Lowe, PLLC 4000 Legato Road Suite 310 FAIRFAX, VA 22033				
EXAMINER				
FORD, JOHN K				
ART UNIT		PAPER NUMBER		
3744				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/560,362

Applicant(s)

KOUKOURAVAS ET AL.

Examiner

John K. Ford

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 02 June 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/22)
Paper No(s)/Mail Date 7/30/10
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Applicant's response of June 2, 2010 has been studied carefully. In view of the presentation of amended claims directed to narrowed subject matter that avoids the primary reference of the previously applied prior art, further discussion of the previously applied prior art based rejections is deemed moot.

Apparently, there is on-going foreign prosecution of applications corresponding to this application. Translations of any rejections made by these foreign patent offices of claims similar to those presented here are required by the examiner pursuant to applicant's duty of disclosure so as to allow the examiner to intelligently understand how his counterparts worldwide view this claimed subject matter. See MPEP 2001.06(a), incorporated here by reference.

Claim Interpretation:

Apparatus claims are interpreted to be directed to a final product not to a method of assembly or to units that are not of part of the final product that are apparently left on the factory floor during assembly. Therefore, new claims 21 and 22 are interpreted as claiming either a two zone final product or three zone final product in the case of claim 21 and as claiming any one of a two zone final product or three zone final product or four zone final product in the case of claim 22.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the previous rejection the examiner stated that the nature of limitation "modular" was not understood from either the specification or the claims. What makes these devices modular? How are they modular? In the 2 June 2010 response to this, applicant has included a definition from an on-line dictionary that defines "modular" as "of, relating to, or based on a module or a modulus" or "constructed with standardized units or dimensions for flexibility and variety in use". From the specification applicant also quotes the following found on page 2, line 35: "A modular device is to be understood as meaning either an individual component or a plurality of components which have been assembled to form one unit and at least serve a common purpose." The examiner maintains that all of these definitions of "modular" are ambiguous because they use ambiguous terms to define the ambiguous term "modular". The on-line dictionary discusses "standardized units" (whatever "standardized" is supposed to mean in the context of "units") or "standardized dimensions" (whatever "standardized" is supposed to mean in the context of "dimensions") "for flexibility and variety in use". This latter phrase "for flexibility and variety in use" is extremely ambiguous. How would a would-be infringer, short of a lawsuit, be able to determine whether or not his allegedly

infringing modular device met the limitation "for flexibility and variety in use" or not? What standard does one use to measure "flexibility and variety in use"? The examiner cannot imagine a more subjective definition. Similarly, the definition in the specification: "either an individual component or a plurality of components which have been assembled to form one unit and at least serve a common purpose" is very different from the one in the on-line dictionary, but also has an ambiguous phrase: "at least serve a common purpose." Would not every component or components in an air conditioning unit serve a "common purpose" of, for example, making the air conditioning unit operative? If not, what is the nature of this "common purpose"? Again, neither the claims nor the specification gives any concrete definition or yardstick by which to gauge one's conduct. How would a would-be infringer, short of a lawsuit, be able to determine whether or not his allegedly infringing modular device "at least serve[d] a common purpose"?

The term "modular" remains indefinite notwithstanding counsel's arguments to the contrary and is deemed to be even more indefinite as a consequence of the newly submitted on-line dictionary definition (that is materially different from that suggested by the specification) as explained above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 8, 11 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 5-58144.

Regarding claims 1-5, 7, 8, 11 and 17-22, JP '144 shows a vehicular air conditioner unit having a housing (generally at 1), a first apparatus for exchanging heat (evaporator 3 and its associated compressor, condenser and expansion valve, not shown), a second apparatus for exchanging heat (heater 4), an air inlet (generally at 2a, 2b), an air outlet (see right side of Figures 2, 5 and 6) and an air flow control device (6, 8 and 9 and their subcomponent parts in the case of the plural zone embodiments). At least one device "configured to adapt the air conditioning unit to condition a plurality of zones within the motor vehicle" meeting at least one of applicant's definitions of "modular" is shown in Figures 1-4 (one zone), Figure 5 (two zone) and Figure 6 (three zone) between the heater 4 and the air outlets at the right side of Figures 2, 5 and 6.

This reference was submitted by applicant for consideration on the IDS received 7/30/10 without an English language translation. Applicant may obtain a machine language translation that is readily available to applicant (for free) at the JPO website and such a translation is not included here.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-58144 as applied to claim 1 above, and further in view of Groemmer et al (USP 6,581,678).

Regarding claims 6, 9 and 10, to have added an optional electric heater immediately downstream of heater 4 of JP '144 would have been obvious to one of ordinary skill in the art as taught by Groemmer at column 4, lines 60-67, incorporated here by reference. Such electric heaters advantageously offer fast heat up of the vehicle on very cold days when the engine coolant can take a long time to warm up.

Regarding claim 22, to have added another structure 1b including another modular door 8b and another modular partition plate 9c and/or 9b) to Figure 6 of JP '144 would have been obvious in view of Groemmer which teaches a four zone system using three partitions. Such a modification would advantageously increase occupant comfort by allowing the rear seat occupants (like the front seat occupants) to individually control the temperature conditioning to their individual comfort level.

Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-58144 in view of JP 61-85218.

The explanation of JP '144, above, is incorporated here by reference. Regarding claims 12-16, it would have been obvious to one of ordinary skill in the art to have connected the compressor 1, condenser 2 (with two separate sections 2a and 2b controlled by valve 10), receiver 3 and expansion valve 4, back pressure valve 7 and return line 6 of JP 61-85218 to the evaporator 3 of JP '144 so that the evaporator 3 of JP '144 would perform its conventional cooling function (advantageously without freezing up the evaporator as taught by JP '218). Regarding claims 12-16, there are two flow paths 2a and 2b through the apparatus for the exchange of heat through which refrigerant passes. The two feeds for refrigerant branch upstream of valve 10. The common discharge line takes the refrigerant to the receiver 3. In the June 2, 2010 amendment applicant has not commented upon or traversed any of the teachings of JP '218 and therefore the examiner assumes that applicant agrees with the obviousness conclusion.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John K. Ford/
Primary Examiner, Art Unit 3744